Expand the description to 10 pages (5000-6000 words) which should be a development of the previously submitted proposal.

A fresh view is valued. Please, defend your proposal by including not only technological, but also socio-economic, political, ethical and environmental aspects.

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Executive summary

Europe’s ambition for strategic autonomy is currently hindered by the fragmentation of its human capital. While the European Defence Fund (EDF) successfully fosters technological innovation, the experts responsible for designing and managing these systems remain confined within national and disciplinary silos. This lack of integration creates a critical gap between technical engineering, geopolitical imperatives, and operational realities on the ground.

To address this challenge, « **Defense Erasmus** » establishes itself as the first transnational and interdisciplinary talent incubator for the aerospace and defence sector.

The programme structures its curriculum around pioneering **competence triads**, systematically pairing three distinct profiles:

- **Technical :** a STEM profile (science, technology, engineering, and mathematics);
- **Strategic :** a social sciences and humanities profile (law, economics, geopolitics);
- **Operational :** a future career officer.

Each cell is composed of **three different European nationalities**, ensuring multicultural immersion.

Programme at a glance

Duration: 8 months (+ 2-week onboarding bootcamp)

Pilot cohort: 50-100 Triads (150–300 students) across Europe

Four rotation hubs: Engineering school - Strategy/Sciences Po - Military academy - Defence industry

Final deliverable: Hybrid white paper submitted to the EU or NATO

Integration tool: AI-powered « Match & Move », matching platform

The problem : three divides threatening European defence

Europe's defence ecosystem is suffering not from a lack of funding or technology, but from a structural human disconnect. We identify three critical fractures that undermine the EU's capacity to build genuine strategic autonomy.

⚙

The tech-strategy gap

Engineers and strategists operate in parallel universes, producing « blind strategy ».

🏛

The civil-military gap

Gen Z sees defence as opaque or hierarchical. Military academies remain cut off from civilian innovation flows.

🌍

The national silo problem

Despite PESCO, strategic cultures remain stubbornly national. True EU defence needs shared experiences, not just shared budgets.

The development of European strategic autonomy faces a **challenge of interdisciplinary coordination.** While a dialogue exists between technological designers and policy-makers, the accelerating pace of innovation makes their alignment increasingly complex.

Engineers, focused on performance optimization, do not always possess the necessary frameworks to anticipate evolving international humanitarian law standards. Conversely, strategic leaders overseeing disruptive systems-such (as defense AI or cyber capabilities) must manage technologies whose rate of evolution sometimes outpaces traditional decision-making cycles.

This situation generates concrete **operational misalignments:** strategic planning that struggles to integrate technical constraints, coupled with an engineering culture that does not always grasp the full breadth of sovereign and state-level imperatives.

The civil-military and generational gap

For Generation Z, the defence sector often appears as a « black box » : hierarchical, opaque, and culturally disconnected from contemporary aspirations for transparency. Meanwhile, military academies remain structurally isolated from the creative and entrepreneurial flux of civilian universities. Future officers are rarely exposed to agile R&D cultures, while future engineers are almost never confronted with the weight of operational command decisions. Without a shared cultural denominator (a common language bridging the laboratory and the field), the aerospace and defence sector will struggle to attract, retain, and integrate the multidisciplinary talent required to meet the security challenges of the 21st century.

The national silo problem

Despite the progress made by the EDF or PESCO, European strategic cultures remain deeply shaped by national legacies. As NATO's experience demonstrates, technical interoperability remains fragile without a human component. Operational fluidity also relies on building networks of civilian and military leaders who have developed shared instincts during their initial training, thereby facilitating future cooperation in the field.

The concept : Defense Erasmus

The Defense Erasmus project integrates into existing university curricula as an exchange semester or a gap year, without creating new bureaucratic structures. It serves to federate engineering and social science schools alongside military academies within a shared training framework.
The fundamental innovation of the programme lies in the **triad** : a cross-border trinomial composed of three students from different European countries and complementary academic backgrounds. Unlike traditional Erasmus exchanges, the triad operates as an **inseparable unit** throughout the entire programme. Its members work, travel, and collaborate together until the production of their final deliverable.

⚙	🌍	🎖
The engineer	**The strategist**	**The cadet-officer**
Polytechnique Milano, TU Munich, KTH Stockholm	*Sciences Po Paris, LSE, Hertie Berlin, law faculties*	*Saint-Cyr, Bundeswehr Uni, Polish Military Academy*
✓ Aerospace, cyber, robotics, AI	✓ Geopolitics, law, economics, ethics	✓ Military doctrine, field command
✓ Quantitative and systems thinking	✓ Policy analysis & stakeholder mapping	✓ Operational planning and logistics
✓ Delivers the technical design	✓ Delivers legal/budgetary framework	✓ Delivers tactical action plan

The Match & Move platform

Triads are not assigned arbitrarily. They are formed through an AI-powered matching platform, « Match & Move », which pairs profiles based on four axes :

Matching Axis	Description
Complementarity	The three profiles must cover the full STEM/strategy/military spectrum without overlap. However, in the event that students from military academies are unavailable, the triad's composition may be adapted to maintain the project's coherence
National diversity	No two members of a triad may share the same nationality
Thematic alignment	Triads declare a primary challenge domain (space, cyber, naval, AI ethics, hybrid warfare…) and are matched with others working in the same area.
Personal compatibility	A short profiling questionnaire (work style, conflict resolution, leadership preference, hobbies) informs the algorithm and minimises interpersonal friction.

This « Match & Move » system is designed to resonate with Generation Z users: an intuitive interface, inspired by platforms like Tinder. By replacing top-down administrative assignments with mutual profile validation, the programme ensures high engagement and immediate cohesion within the triad.

IA generated

Programme structure : eight months, four hubs.

« Defense Erasmus » follows a deliberately itinerant structure. Each physical relocation forces the triad to adapt to a new institutional culture, a new set of values, and a new way of thinking about the same problem. By the end of the programme, each student will have lived, worked, and been challenged on the other participants' home turf.

MONTHS 1–2	MONTHS 3–4	MONTHS 5–6	MONTHS 7–8
COUNTRY A	COUNTRY B	COUNTRY C	COUNTRY D
Engineering hub R&D immersion, AI, robotics, aerospace	**Strategy hub** Defence economics, international law and relations	**Military academy** Field reality, command, leadership, weight of operational decisions	**Industry placement** Industry company (Airbus, Leonardo, Thales or BAE Systems…)

Onboarding : the integration bootcamp (two weeks) to forge the triad in adversity

The Defence Erasmus programme does not begin in a lecture theatre, but in the field. For two intensive weeks, the participants are brought together at a European military training centre. The focus is not yet on acquiring theoretical knowledge, but on creating a common language through mutual demystification and accelerated acculturation in order to lay the foundations for building relationships.

Bootcamp structure

Day 1 | **Meeting, team-building**, and study of the EU defence institutional landscape (EDF, PESCO, EDIS, European Defence Agency).

Days 2-3 | **« Common language » flash courses** : « survival basis and topography », « introduction to coding and cyber vulnerabilities » or « law of armed conflict »…

Days 4-9 | **The camp** : The triads are deployed in the field for 48 hours with standard equipment. The aim is to induce physical fatigue in order to observe the deterioration of decision-making, observing decision-making process, including a night-time orientation march in complete autonomy.

Days 10-12 | **The grand wargame** : large-scale hybrid crisis simulation, designed by experts from the European Security and Defence College (ESDC). It uses stress techniques : partial sleep deprivation, contradictory situation reports and unexpected « incidents » (e.g. power failure in the crisis unit). The wargame forces immediate application of cross-disciplinary reasoning under pressure and breaks down professional ego barriers faster than any seminar.

The scenario : with connectivity collapsing amid geopolitical tensions in the Mediterranean and the Arctic, Europe is subjected to a coordinated attack:

- Cyber phase : Sabotage of air traffic control (ATC) systems and paralysis of public services in a Member State.
- Space phase : Jamming of Galileo signals, making navigation inaccurate for military forces and civilian transport.
- Information phase : Massive deepfake campaign showing a European military attack to divide public opinion.

Days 12-14 | **Debrief and challenge briefings** : Success is not measured by military « victory », but by the quality of coordination : integrate legal constraints into the technical solution, understand technical deployment timelines, accept political constraints limiting the use of force.

Then, each Triad receives its formal « mission » from the programme's Industry-Academic Advisory Board, which frames their eight-month research and development agenda.

At the end, the Triad is no longer just a working team, but an organic unit. National barriers have disappeared behind the urgency of the mission. It is this « human interoperability » that will serve as the foundation for the rest of the rotation year.

HUB 1 : Engineering immersion (months 1-2)

Firstly, the Triad relocates to the engineering student's home institution. The two non-engineers are fully integrated into the engineering school's environment : they attend seminars, visit research labs, and join active R&D projects relevant to their challenge domain.

HUB 1	Details
Primary location	Top EU engineering school (TU Munich, Politecnico Milano, KTH, CentraleSupélec, EPFL…)
Core learning	Systems engineering, AI limitations, cyber vulnerability assessment, aerospace materials, autonomous systems architecture
Visits	Fraunhofer Institute (Germany), DGA labs (France), ESA technical centre (ESTEC, Netherlands)
Triad activity	Triads begin technical scoping of their challenge: what is technically feasible? What are the hard constraints?
Deliverable	Technical feasibility memo (confidential, submitted to the Advisory Board)

HUB 2 : Strategy, policy and law immersion (months 3-4)

The Triad relocates to the strategy student's home institution. The engineer and the cadet now enter the world of international relations seminars, parliamentary simulations, and legal workshops. The deliberate disorientation, like the engineer sitting in a law seminar, the cadet in a budget negotiation role-play, is core to the programme's pedagogy.

HUB 2	Details
Primary location	Leading social science institution (Sciences Po, LSE, Hertie School, College of Europe, EUI Florence…)
Core learning	European defence law, export control regimes (Wassenaar Arrangement), defence budgeting, arms trade ethics, EU political decision-making
Visits	European Parliament (Defence Committee), NATO HQ (Brussels), Stockholm International Peace Research Institute (SIPRI)
Triad activity	Legal and ethical audit of their technical proposal; identification of regulatory red lines and political feasibility constraints
Deliverable	Legal-strategic assessment memo (integrated with Hub 1 technical memo)

HUB 3 : Military academy (months 5-6)

The Triad go to the cadet-officer's home military academy. This is the most transformative phase for the two civilian students. They are integrated into aspects of academy life (morning PT, field exercises, command simulations) while bringing their evolving technical-strategic proposal into contact with operational reality for the first time.

HUB 3	Details
Primary location	European military academy (Saint-Cyr, Bundeswehr Universität Munich, Royal Military Academy Brussels, Polish Military Academy…)
Core learning	Tactical planning, logistics constraints, rules of engagement, operational security, leadership under uncertainty
Visits	NATO Allied Command Transformation (Norfolk via liaison), EDA operational units, national cyber command
Triad activity	Stress-testing their proposal against operational realities: Is it deployable ? Is it maintainable in the field? Does it comply with LOAC ?
Deliverable	Operational viability assessment : the cadet leads this section with engineer and strategist support

HUB 4 : Industry internship and placement (months 7-8)

The Triad's final phase places them within a European defence industry partner. They are embedded as a unit within a real R&D or strategy team and are given access to data, professionals, and classified-adjacent projects that contextualise everything they have learned.

HUB 4	Details
Industry partners	Airbus Defence & Space, Leonardo, Thales Group, BAE Systems, Dassault Aviation, MBDA, Safran, Rheinmetall, Rolls Royce
Core learning	Industrial R&D cycles, dual-use technology development, NATO STANAG compliance, export licensing
Triad activity	Drafting the full Hybrid White Paper : integrating all four hub perspectives into a single, coherent strategic-technical proposal
Deliverable	Final Hybrid White Paper (delivered to the Sovereign Challenge jury)

The sovereign challenge

The sovereign challenge is the programme's culminating event. It is not a standard academic presentation : it is a structured policy pitch, modelled on the format used by defence consultancies and think tanks when presenting to institutional clients, fuelled by their entire year's experience of interoperability and travel. The Triad presents their Hybrid White Paper to a jury composed of real stakeholders from the three domains they have inhabited over the year.

The challenge domains

Each cohort works on one of the following challenge domains, issued by the Industry-Academic Advisory Board in partnership with the European Commission, EDA, or NATO :

Space & orbital security Anti-satellite strategy, dual-use space assets, European launch sovereignty	**Cyber and hybrid threats** Protection of critical infrastructure, attribution doctrine, cyber deterrence	**Autonomous systems ethics** Lethal autonomous weapons regulation, AI decision-support frameworks, LOAC compliance
Maritime and undersea Submarine cable protection, Arctic access, unmanned maritime drones	**Defence logistics/resilience** European supply chain sovereignty, dual-use infrastructure, munitions stockpiling	**Strategic communications** Disinformation countermeasures, psychological operations, narrative warfare

The Hybrid White Paper

The Hybrid White Paper is a strategic document structured in three mandatory sections, each led by a different Triad member :

Document section	Content & responsibility
Section A : Technical Blueprint (Engineer-led)	Detailed design or evaluation of a technology solution: system architecture, performance parameters, limitations, integration requirements, and R&D roadmap.
Section B : Legal-Strategic Framework (Strategist-led)	Regulatory analysis, budget modelling, political feasibility assessment, international law compliance, and diplomatic implications.
Section C : Operational Doctrine (Cadet-led)	Deployment concept, command structure, logistics chain, rules of engagement, training requirements, and interoperability standards.
Executive summary (Joint)	Co-authored by all three members, demonstrating the integrated, holistic approach that defines the programme's value proposition.

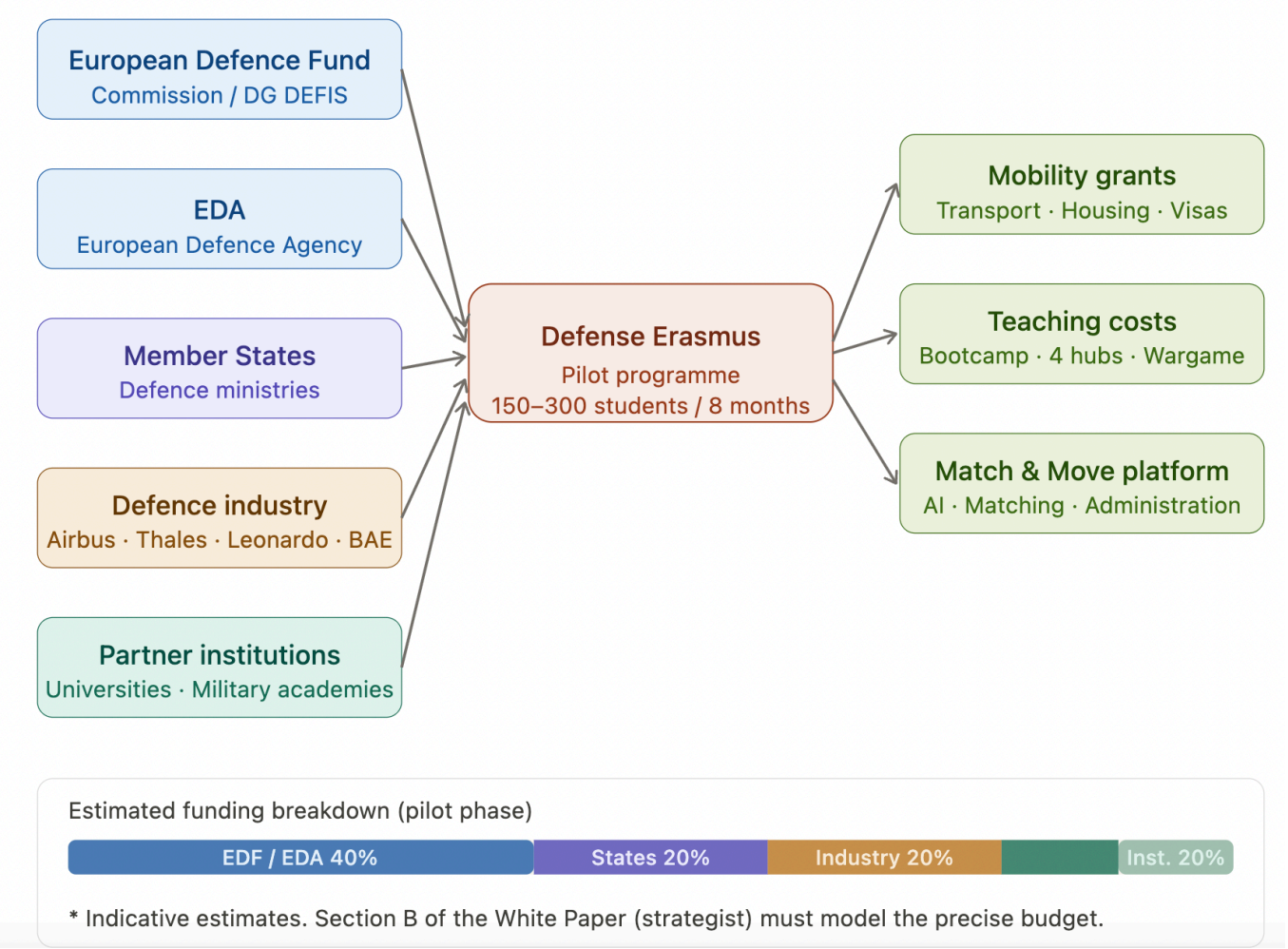
Jury

The Sovereign Challenge jury is in Brussels at the end of the programme year, it is designed to involve leading institutional stakeholders, to complete the European integration of the triads :

- Representatives from the European Defence Agency (EDA) and DG DEFIS (European Commission)
- Senior officers from the EU Military Committee (EUMC)
- Chief technology officers or Strategy Directors from two industry partner organisations
- A representative from a European military academy
- An independent ethics expert (e.g., from SIPRI or the International Committee of the Red Cross)

Impact analysis

Who funds this project ?



Academic impact : credit recognition and academic integration

A core barrier to ambition in transnational programmes is the question of academic credit. Defense Erasmus addresses this by adopting the European Credit Transfer and Accumulation System (ECTS), with the full 8-month programme equivalent to 60 ECTS credits, the standard for a one-year Erasmus exchange.
Partner institutions agree in advance to recognise these credits within their own degree frameworks. The Hybrid White Paper substitutes for a master's thesis or final-year project requirement at participating institutions. This integration into existing degree structures eliminates the "opportunity cost" concern that would otherwise deter high-achieving students from applying.

Social impact : a human network

The programme's most enduring social output is the human network it creates.

Alumni of the first cohorts will, by 2040, occupy senior positions in European defence ministries, the European Commission, NATO structures, and the aerospace and defence industry.

When a Polish procurement officer negotiates with a French engineer over a joint armoured vehicle programme, and they both participated in Defense Erasmus, the negotiation will be fundamentally different. Not because they will automatically agree, but because they will understand each other's red lines, speak each other's professional language, and trust each other's competence.

They will share a common vocabulary, common experiences (the Wargame, the road trip between hubs, the final presentation in Brussels), and common friendships forged under pressure. This is the European equivalent of the Ivy League or ENA alumni networks that currently shape Anglo-American and French strategic decision-making, but built on European diversity rather than national elitism.

Environmental impact : an alternative solution

Aware of current climate challenges, the Defense Erasmus programme places environmental responsibility at the heart of its operations. To limit the carbon footprint associated with the movement of triads between various European centres of excellence, participants are strongly encouraged to prioritise rail travel. Through a strategic partnership with Interrail, each trinomial is provided with a pass, facilitating their transnational journeys by train.

The three divides we have identified, between technology and strategy, between civilian and military culture, and between national silos, will not be resolved by any procurement programme or legislative initiative. They will be resolved only when the next generation of European leaders share a common formation, a common network, and a common sense of European strategic identity.

Defense Erasmus is not a proposal for a new bureaucracy. It is a proposal for a new generation.

« One year. Three perspectives. One European Defence. »